0120/0330

#2

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/825,212

DATE: 04/18/2001
TIME. 07:04:02

ENTERED

Input Set : A:\00032nc1.app
Output Set: N:\CRF3\04182001\I825212.raw

```
      3 <110> APPLICANT: Benson, Timothy E
      5 <120> TITLE OF INVENTION: CRYSTALLIZATION AND STRUCTURE DETERMINATION OF
      6       STAPHYLOCOCCUS AUREUS THIOREDOXIN REDUCTASE
      8 <130> FILE REFERENCE: 00032.US1
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/825,212
     11 <141> CURRENT FILING DATE: 2001-04-03
     13 <150> PRIOR APPLICATION NUMBER: 60/195,055
     14 <151> PRIOR FILING DATE: 2000-04-06
     16 <160> NUMBER OF SEQ ID NOS: 3
     18 <170> SOFTWARE: PatentIn Ver. 2.1
     20 <210> SEQ ID NO: 1
     21 <211> LENGTH: 320
     22 <212> TYPE: PRT
     23 <213> ORGANISM: Staphylococcus aureus
     25 <400> SEQUENCE: 1
     26 Met Gly Thr Glu Ile Asp Phe Asp Ile Ala Ile Ile Gly Ala Gly Pro
     27   1               5                  10                  15
     29 Ala Gly Met Thr Ala Ala Val Tyr Ala Ser Arg Ala Asn Leu Lys Thr
     30              20                  25                  30
     32 Val Met Ile Glu Arg Gly Ile Pro Gly Gly Gln Met Ala Asn Thr Glu
     33          35                  40                  45
     35 Glu Val Glu Asn Phe Pro Gly Phe Glu Met Ile Thr Gly Pro Asp Leu
     36      50                  55                  60
     38 Ser Thr Lys Met Phe Glu His Ala Lys Lys Phe Gly Ala Val Tyr Gln
     39  65                  70                  75                  80
     41 Tyr Gly Asp Ile Lys Ser Val Glu Asp Lys Gly Glu Tyr Lys Val Ile
     42                  85                  90                  95
     44 Asn Phe Gly Asn Lys Glu Leu Thr Ala Lys Ala Val Ile Ile Ala Thr
     45              100                 105                 110
     47 Gly Ala Glu Tyr Lys Lys Ile Gly Val Pro Gly Glu Gln Glu Leu Gly
     48          115                 120                 125
     50 Gly Arg Gly Val Ser Tyr Cys Ala Val Cys Asp Gly Ala Phe Phe Lys
     51      130                 135                 140
     53 Asn Lys Arg Leu Phe Val Ile Gly Gly Gly Asp Ser Ala Val Glu Glu
     54 145                 150                 155                 160
     56 Gly Thr Phe Thr Thr Lys Phe Ala Asp Lys Val Thr Ile Val His Arg
     57                 165                 170                 175
     59 Arg Asp Glu Leu Arg Ala Gln Arg Ile Leu Gln Asp Arg Ala Phe Lys
     60             180                 185                 190
     62 Asn Asp Lys Ile Asp Phe Ile Trp Ser His Thr Thr Lys Ser Ile Asn
     63         195                 200                 205
     65 Glu Lys Asp Gly Lys Val Gly Ser Val Thr Leu Thr Ser Thr Lys Asp
     66     210                 215                 220
     68 Gly Ser Glu Glu Thr His Glu Ala Asp Gly Val Phe Ile Tyr Ile Gly
     69 225                 230                 235                 240
     71 Met Lys Pro Leu Thr Ala Pro Phe Lys Asp Leu Gly Ile Thr Asn Asp
     72                 245                 250                 255
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RAW SEQUENCE LISTING DATE: 04/18/2001
PATENT APPLICATION: US/09/825,212 TIME: 07:04:02

Input Set : A:\00032nc1.app
Output Set: N:\CRF3\04182001\I825212.raw

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74 Val Gly Tyr Ile Val Thr Lys Asp Asp Met Thr Thr Ser Val Pro Gly
75             260                 265                 270
77 Ile Phe Ala Ala Gly Asp Val Arg Asp Lys Gly Leu Arg Gln Ile Val
78         275                 280                 285
80 Thr Ala Thr Gly Asp Gly Ser Ile Ala Ala Gln Ser Ala Ala Glu Tyr
81     290                 295                 300
83 Ile Glu His Leu Asn Asp Gln Ala Arg Ser His His His His His His
84 305                 310                 315                 320
90 <210> SEQ ID NO: 2
91 <211> LENGTH: 320
92 <212> TYPE: PRT
93 <213> ORGANISM: Escherichia coli
95 <400> SEQUENCE: 2
96 Gly Thr Thr Lys His Ser Lys Leu Leu Ile Leu Gly Ser Gly Pro Ala
97   1               5                  10                  15
99 Gly Tyr Thr Ala Ala Val Tyr Ala Ala Arg Ala Asn Leu Gln Pro Val
100             20                  25                  30
102 Leu Ile Thr Gly Met Glu Lys Gly Gly Gln Leu Thr Thr Thr Thr Glu
103         35                  40                  45
105 Val Glu Asn Trp Pro Gly Asp Pro Asn Asp Leu Thr Gly Pro Leu Leu
106     50                  55                  60
108 Met Glu Arg Met His Glu His Ala Thr Lys Phe Glu Thr Glu Ile Ile
109 65                  70                  75                  80
111 Phe Asp His Ile Asn Lys Val Asp Leu Gln Asn Arg Pro Phe Arg Leu
112                 85                  90                  95
114 Asn Gly Asp Asn Gly Glu Tyr Thr Cys Asp Ala Leu Ile Ile Ala Thr
115             100                 105                 110
117 Gly Ala Ser Ala Arg Tyr Leu Gly Leu Pro Ser Glu Glu Ala Phe Lys
118         115                 120                 125
120 Gly Arg Gly Val Ser Ala Cys Ala Thr Cys Asp Gly Phe Phe Tyr Arg
121     130                 135                 140
123 Asn Gln Lys Val Ala Val Ile Gly Gly Gly Asn Thr Ala Val Glu Glu
124 145                 150                 155                 160
126 Ala Leu Tyr Leu Ser Asn Ile Ala Ser Glu Val His Leu Ile His Arg
127                 165                 170                 175
129 Arg Asp Gly Phe Arg Ala Glu Lys Ile Leu Ile Lys Arg Leu Met Asp
130             180                 185                 190
132 Lys Val Glu Asn Gly Asn Ile Ile Leu His Thr Asn Arg Thr Thr Glu
133         195                 200                 205
135 Glu Val Thr Gly Asp Gln Met Gly Val Thr Gly Val Arg Leu Arg Asp
136     210                 215                 220
138 Thr Gln Asn Ser Asp Asn Ile Glu Ser Leu Asp Val Ala Gly Leu Phe
139 225                 230                 235                 240
141 Val Ala Ile Gly His Ser Pro Asn Thr Ala Ile Phe Glu Gly Gln Leu
142                 245                 250                 255
144 Glu Leu Glu Asn Gly Tyr Ile Lys Val Gln Ser Gly Ile His Gly Asn
145             260                 265                 270
147 Ala Thr Gln Thr Ser Ile Pro Gly Val Phe Ala Ala Gly Asp Val Met
148         275                 280                 285
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RAW SEQUENCE LISTING DATE: 04/18/2001
PATENT APPLICATION: US/09/825,212 TIME: 07:04:02

Input Set : A:\00032nc1.app
Output Set: N:\CRF3\04182001\I825212.raw

```
150 Asp His Ile Tyr Arg Gln Ala Ile Thr Ser Ala Gly Thr Gly Cys Met
151     290                 295                 300
153 Ala Ala Leu Asp Ala Glu Arg Tyr Leu Asp Gly Leu Ala Asp Ala Lys
154 305                 310                 315                 320
160 <210> SEQ ID NO: 3
161 <211> LENGTH: 333
162 <212> TYPE: PRT
163 <213> ORGANISM: Arabidopsis thaliana
165 <400> SEQUENCE: 3
166 Met Asn Gly Leu Glu Thr His Asn Thr Arg Leu Cys Ile Val Gly Ser
167   1               5                  10                  15
169 Gly Pro Ala Ala His Thr Ala Ala Ile Tyr Ala Ala Arg Ala Glu Leu
170             20                  25                  30
172 Lys Pro Leu Leu Phe Glu Gly Trp Met Ala Asn Asp Ile Ala Pro Gly
173         35                  40                  45
175 Gly Gln Leu Thr Thr Thr Thr Asp Val Glu Asn Phe Pro Gly Phe Pro
176     50                  55                  60
178 Glu Gly Ile Leu Gly Val Glu Leu Thr Asp Lys Phe Arg Lys Gln Ser
179 65                  70                  75                  80
181 Glu Arg Phe Gly Thr Thr Ile Phe Thr Glu Thr Val Thr Lys Val Asp
182                 85                  90                  95
184 Phe Ser Ser Lys Pro Phe Lys Leu Phe Thr Asp Ser Lys Ala Ile Leu
185             100                 105                 110
187 Ala Asp Ala Val Ile Leu Ala Ile Gly Ala Val Ala Lys Arg Leu Ser
188         115                 120                 125
190 Phe Val Gly Ser Gly Glu Val Leu Gly Gly Phe Trp Asn Arg Gly Ile
191     130                 135                 140
193 Ser Ala Cys Ala Val Cys Asp Gly Ala Ala Pro Ile Phe Arg Asn Lys
194 145                 150                 155                 160
196 Pro Leu Ala Val Ile Gly Gly Gly Asp Ser Ala Met Glu Glu Ala Asn
197                 165                 170                 175
199 Phe Leu Thr Lys Tyr Gly Ser Lys Val Tyr Ile Ile His Arg Arg Asp
200             180                 185                 190
202 Ala Phe Arg Ala Ser Lys Ile Met Gln Gln Arg Ala Leu Ser Asn Pro
203         195                 200                 205
205 Lys Ile Asp Val Ile Trp Asn Ser Ser Val Val Glu Ala Tyr Gly Asp
206     210                 215                 220
208 Gly Glu Arg Asp Val Leu Gly Gly Leu Lys Val Lys Asn Val Val Thr
209 225                 230                 235                 240
211 Gly Asp Val Ser Asp Leu Lys Val Ser Gly Leu Phe Phe Ala Ile Gly
212                 245                 250                 255
214 His Glu Pro Ala Thr Lys Phe Leu Asp Gly Gly Val Glu Leu Asp Ser
215             260                 265                 270
217 Asp Gly Tyr Val Val Thr Lys Pro Gly Thr Thr Gln Thr Ser Val Pro
218         275                 280                 285
220 Gly Val Phe Ala Ala Gly Asp Val Gln Asp Lys Lys Tyr Arg Gln Ala
221     290                 295                 300
223 Ile Thr Ala Ala Gly Thr Gly Cys Met Ala Ala Leu Asp Ala Glu His
224 305                 310                 315                 320
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/825,212

DATE: 04/18/2001
TIME: 07:04:02

Input Set : A:\00032ncl.app
Output Set: N:\CRF3\04182001\I825212.raw

```
226 Tyr Leu Gln Glu Ile Gly Ser Gln Glu Gly Lys Ser Asp
227                 325                 330
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VERIFICATION SUMMARY DATE: 04/18/2001
PATENT APPLICATION: **US/09/825,212** TIME: 07:04:03

Input Set : **A:\00032ncl.app**
Output Set: **N:\CRF3\04182001\I825212.raw**

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number